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## REMARKS/ARGUMENTS

The amendments and remarks hereto attend to all outstanding issues in the pending office action of 20 March 2006. Claims 7, 8 and 11-23 remain pending in this application.

### **Responses to Examiner's Statements, Objections and Rejections in Office Action of 20 March 2006**

The following paragraphs follow the order of the paragraphs in the Office Action mailed 20 March 2006 in this application.

#### **Remark**

Applicants acknowledge Examiner's entry of Applicants' amendment of 6 January 2006.

#### **1. Claim Objections**

The Examiner objects to claims 7, 8 and 11-23. The Examiner indicates confusion about the terms "ambiguity function," "vertical variable  $v$ ," "main lobe of the ambiguity function" and "the PSF has a functionally different form." The Examiner concludes this section by stating that "For the above reasons the scopes of the claims are not well definite [sic]. Appropriate correction is required." Office Action, page 3.

First, Applicants note that in the Interview held on 6 December 2005, it was agreed that the officially-filed Response to the Office Action mailed 8 July 2005 would include a tutorial of Wavefront Coding technology. A "Tutorial of Wavefront Coding" (the "Tutorial") of some 22 pages, conforming to this agreement, was supplied in the Amendment mailed on 6 January 2006. Also, a Rule 132 Declaration (the "Declaration") was filed on 5 May 2005.

The specification of the present application contains ample clarification and definition of the terms questioned by the Examiner. Moreover, the tutorial and the Declaration provide further guidance for the meanings of these terms. For example, and as noted in the "Brief Summary of Claim Amendments" in the amendment of 6 January 2005, see paragraphs [0011], [0070], [0102] and [0113] of the specification and paragraph (8) of the Declaration. Relevant information may also be found in the Tutorial. For example (referring to the page numbers of the Amendment that contains the Tutorial): pages 15, 16, 19, 20, 21, 23, 30, 31 and 32 all include information related to the ambiguity function and/or the  $v$ -axis related to vertical

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variable *v*; pages 19, 30, 31 and 32 all include information related to the "main lobe" and pages 17, 21, 22, 24, 25 and 33 all include information related to "functional form of the PSF." Based on this information, we disagree with the Examiner's assertion that the terms mentioned are "confusing" or that they render any of the claims indefinite. Applicants therefore traverse the Examiner's requirement for "correction" and request reconsideration and withdrawal of the Examiner's objections.

Second, Applicants point out that issues of language that are alleged to affect definiteness of a claim are not "informalities" or "formal matters" as the term is generally understood. In addition to the above request for reconsideration of the Examiners objections, Applicants request that the Examiner reconsider and withdraw the current objection as not being related to matters of form, based on this understanding of "informalities."

#### **5. Information Disclosure Statement**

The Examiner has repeated that "The information disclosure statement filed January 16, 2004, contains a list of more than 150 references." Office Action, page 3. Applicants hereby refer to, and reiterate, each of the statements and arguments that were included in Applicants' Amendments of 5 May 2005 and 6 January 2006 under the heading "Information Disclosure Statement."

The Examiner also notes "Applicant has submitted a list of 'relevance' with regard to each of the references, where some of the references have been indicated such as 'microscope', 'zoon lens' [sic] or 'variable lens' etc. yet it is not clear how do they [sic] either relevant or not relevant to this application?" Applicants disagree with the Examiner's characterization of the list provided as one of "relevance." As noted above, during the Interview of December 6, 2005, the Applicants agreed to provide, and the Examiner agreed to consider, a categorized list of all of the cited art. The table provided in the Amendment mailed 6 January 2006 divides the cited art into categories, exactly as proposed by Applicants and as agreed to by the Examiner.

The Examiner also reiterates "the applicant is respectfully requested to document their [sic] 'doubts' explicitly concerning each reference of the list whether being 'material' to the merits of the invention or not so that the examiner can consider them properly." We note that no opinion about having 'doubts' has ever been expressed by Applicants; furthermore, Office policy as reflected in 37 CFR §§1.97 and 1.98 imposes no obligation to document 'doubts' in

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order to have properly cited references considered by an Examiner. Accordingly, we continue to believe that the Information Disclosure Statements submitted in this application comply with all relevant provisions of 37 CFR §§1.97 and 1.98. Unless evidence is offered by the Examiner to the contrary, we request that the Examiner consider the information contained therein.

**3. – 4. Claim Rejections - 35 U.S.C. §103 over Kubo**

We note, first, that the third paragraph of the Office Action is titled “Claim Rejections - 35 USC §103.” Office Action, page 3. A quotation of 35 USC §103(a) follows.

The Examiner then states that “claims 7, 11 and newly added claims 12-14, 16, 18, 20 and 23 are rejected under 35 U.S.C. §102(b)” as being anticipated by U.S. Patent No. 4,480,896 to Kubo et al. (hereinafter, “Kubo”).

Applicants are therefore at a loss to understand clearly whether the intended rejection is under 35 USC §103(a) or 35 U.S.C. §102(b). We remind the Examiner of Office policy:

“Where a claim is refused for any reason relating to the merits thereof it should be ‘rejected’ and the ground of rejection fully and clearly stated, and the word ‘reject’ must be used. The examiner should designate the *statutory basis* for any ground of rejection by express reference to a **section** of 35 U.S.C. in the opening sentence of each ground of rejection.” *MPEP 707.07(d)*, emphasis in bold added.

The Examiner’s reference to two sections of patent law is not in accord with this policy.

However, since the passage that follows includes allegations of what would be “obvious” (see, e.g., arguments on page 5 directed to claims 13, 16, 20 and 23), we suggest that rejections under 35 USC §103(a) were intended, and our arguments are accordingly directed to such rejections. If Applicants’ assumption - based on the Examiner’s unclear presentation of the rejection - is incorrect, we concede no argument by omission but reserve the right to respond to a corrected Office Action.

**Legal basis for obviousness rejections under 35 U.S.C. §103**

The following is a quotation from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art,

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to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. [MPEP §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)]

Furthermore, a proposed modification cannot render the prior art unsatisfactory for its intended purpose:

If proposed modification would render the prior art unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. [MPEP 82143, citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)]

Under *In re Vaeck*, there must be: (a) some teaching or suggestion to modify the prior art, either in the reference or based on one of ordinary skill at the time the invention was made, without rendering the prior art unsatisfactory; (b) a reasonable expectation of success; and (c) all the claim elements must be taught. 947 F.2d 488, 20 USPQ2d 1438; see also *MPEP 2142* and *2143*. Under *In re Gordon*, a teaching or suggestion to modify the prior art must not render the prior art unsatisfactory for its intended purpose. 733 F.2d 900, 221 USPQ 1125; see also *MPEP 2143*.

In the rejection of claim 7, the Examiner states, *inter alia*:

"Kubo et al further teaches that the optical mask also modulating the wavefront of the light from the sharp objective lens to make the imaging system has [sic] a *soft focus effect* which implicitly means that it creates *an extend* [sic] *of the depth of focus* that is larger than the focus of the imaging system without the optical mask, (please see column 1-2)." Office Action, page 4.

The above statement, other remarks in the present and previous Office Actions, and the "Response to Arguments" section of the present Office Action show that the Examiner fails to appreciate the difference between wavelength-selective elimination of spatial frequency information, called "soft focus" in Kubo, and extending depth of focus. For example: "Kubo et al does teach that the optical phase mask is capable of creating soft focus or extending the depth of the focus..." Office Action, page 5. "Kubo reference teaches explicitly to use the phase mask to create soft focus, namely to extend the depth of focus, just the same as the instant application for reducing the sharpness of the objective lens (please see column 1)." Office Action, page 10.

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First, "reducing the sharpness of the objective lens" is not the intended use of Kubo's optical filter. Especially in the passage cited by the Examiner, Kubo not only fails to teach a general "reducing sharpness" but specifically teaches, in two places, that sharpness of certain features remains desirable:

"A portrait photographed with an ordinary, sharp objective lens reproduces sharply the spots, freckles, wrinkles, etc. of a face, thereby creating an unfavorable impression. To improve this, various soft focus lenses and soft focus filters with sharp lenses are provided. However, since such soft focus lenses and filters produce soft focus effects not only on the facial spots, etc., but also on the other areas of the picture, for example, a dress, hair, etc., a desirable portrait can not be obtained by them. Therefore, a desirable portrait in which the facial spots, freckles, wrinkles, and other common blemishes are reproduced softly and the other areas except for the human skin are reproduced sharply, is not obtained by the above-mentioned device." Kubo, col. 1, lines 13-26, emphasis added.

"An object of the present invention is to provide an optical filter capable of producing desirable portrait photography with a sharp objective lens in such a way that a soft focus effect is produced on the color of human skin, such as a face, hands and feet, while a sharp tone effect is given to a dress, hair, etc." Kubo, col. 1, lines 29-34, emphasis added.

Second, upon reading and appreciating Kubo in its entirety, it is clear that Kubo's optical filter is engineered to produce a "soft focus effect" by reducing high spatial frequency information for a selected wavelength of light. Kubo for example reduces high spatial frequency information available at the wavelength of green light, so as to soften the appearance of skin blemishes characterized by the absorption of green light:

"The human skin generally absorbs the green light because of hemoglobin in the blood, thereby causing its color to appear to be magenta. Facial spots, freckles, wrinkles, etc. are distributed on the background of the magenta color. A facial image formed by use of optical filter having a selective soft focus effect only for green light, results in the spots, freckles, etc. being imaged mainly by magenta light whose color is a complementary color of green, whereby the spots, freckles, etc. become inconspicuous with an approximation in magenta color to the surrounding skin." Kubo, col. 1, lines 47-57, emphasis added.

Also see FIG. 4 of Kubo, showing that for light with a wavelength of 530nm, the modulation transfer function goes to zero at and above a particular spatial frequency S - meaning that the high spatial frequency information is lost. Kubo's explanation is also very clear that the "soft focus effect" is not desirable for, and does not extend to, other wavelengths. For example,

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"Additionally, since this filter brings about no soft focus effect on the red and blue light ranges, most portions of an object, except the skin color, is imaged sharply." Kubo, col. 1, lines 60-63, emphasis added.

Finally, it is appreciated by one skilled in the art that Kubo's "soft focus effect" filter does not, and cannot, extend depth of focus. Kubo directs no statements whatsoever to effects of focus or misfocus. It is also well understood in the art that spatial frequency information that is eliminated (e.g., the high spatial frequency information in the green wavelength that is eliminated by Kubo's optical filter, see again FIG. 4 of Kubo) cannot be reconstructed, to extend depth of focus or for any other purpose.

Claim 7 now includes the limitation:

"wherein the optical mask is configured for modifying the phase of the light such that a main lobe of the ambiguity function is broader in  $v$  for a given value of  $u$  and the PSF has a functionally different form for a given value of  $\psi$ , in comparison to a main lobe of an ambiguity function and a PSF, respectively, characterizing the imaging system without the optical mask for those given values of  $u$  and  $\psi$ , over an extended depth of focus larger than a depth of focus formed without the optical mask."

With respect to this limitation, the Examiner says that "Kubo et al does teach that the optical phase mask is capable of creating soft focus or extending the depth of the focus, it is believed that it is implicitly true that the optical mask will have this inherent function of increasing the main lobe if the optical phase mask extends the depth of focus." Office Action, page 5.

However, as noted above, Kubo's optical filter does not provide extended depth of focus. The Examiner does not provide any other basis for believing that Kubo's optical filter will make a main lobe of the ambiguity function broader in  $v$  for a given value of  $u$ , and make the PSF have a functionally different form for a given value of  $\psi$ , in comparison to a main lobe of an ambiguity function and a PSF, respectively, characterizing the imaging system without the optical mask for those given values of  $u$  and  $\psi$ . We continue to contend that Kubo's optical filter will have no such effect.

The Examiner also says that "With regard to the feature concerning point spread function has a functionally different form, as recited in amended claims 7 and 11 and newly added claims

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12, 14, 16 and 18-20, it is implicitly true that the point spread function for an optical imaging system with an optical mask and without an optical phase mask will be at least mathematically different since the point spread function for the system with the optical phase masks [sic] to include the effect of this phase mask." We point out that a "mathematical" difference in a PSF is not what is meant by "functionally different form" and again we refer the Examiner to pages 17, 21, 22, 24, 25 and 33 of the Tutorial that was requested by the Examiner and provided by Applicants, for information related to "functional form of the PSF." We note, but do not understand, the reference to claim 19 in the Examiner's remark because claim 19 does not include the language being discussed and is not under this particular rejection.

We contend that there is simply no teaching or suggestion in Kubo of an optical mask "configured for modifying the phase of the light such that a main lobe of the ambiguity function is broader in  $v$  for a given value of  $u$  and the PSF has a functionally different form for a given value of  $\psi$ , in comparison to a main lobe of an ambiguity function and a PSF, respectively, characterizing the imaging system without the optical mask for those given values of  $u$  and  $\psi$ , over an extended depth of focus larger than a depth of focus formed without the optical mask." We therefore request reconsideration and withdrawal of the rejection of claim 7 under 35 U.S.C. §103(a).

No further arguments or remarks appear to be directed by the Examiner towards claims 14 and 18. Each of these claims contains a limitation similar to that of claim 7, e.g., related to "the PSF has a functionally different form for a given value of  $\psi$  over an extended depth of focus." Therefore, each of claims 14 and 18 is patentable over Kubo for the same reasons listed for claim 7, and we request reconsideration and withdrawal of the rejection of claims 14 and 18 under 35 U.S.C. §103(a).

With respect to claim 11, the Examiner points out that the misfocus parameter  $\psi$  used in the claim "is well known standard parameter in the art for measuring the misfocus of an imaging system." Office Action, page 5. Applicants agree, but note that the Examiner has previously stated "The symbol ' $\psi$ ' recited in claim 11 is confusing and indefinite." Office Action dated 8 July 2005, page 3.

Aside from the Examiner's differing characterizations of the misfocus parameter  $\psi$ , which do not indicate any teaching or suggestion of claim 11 by the prior art, no further

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arguments or remarks are directed to claim 11 than were directed to claim 7. Accordingly, for the same reasons discussed with respect to claim 7, we request reconsideration and withdrawal of the rejection of claim 11 under 35 U.S.C. §103(a).

With respect to claim 12, the Examiner states "The range of the misfocus recited in claim 12 seems to be arbitrarily selected." This remark appears to be irrelevant to the patentability of claim 12. Since the Examiner does not show that Kubo teaches or suggests an optical mask providing extended depth of focus in a range defined as  $-\frac{\pi}{10} \leq \psi \leq \frac{\pi}{10}$ , we request reconsideration and withdrawal of the rejection of claim 12 under 35 U.S.C. §103(a).

The Examiner goes on to state that "With regard to claims 13, 16, 20 and 23, Kubo et al teaches that the optical phase mask is provided with an imaging system such as photographic system, [sic] which implicitly includes a lens. Although this reference does not teach explicitly that the optical mask and the lens are integrally formed such modification would have been obvious to one skilled in the art for the benefit of reducing the number of the elements in the photographic system for the benefit of providing compact design." Office Action, page 5. We point out that the Examiner's statement that a photographic system "implicitly includes a lens" is not correct; photographic systems based on other elements such as mirrors or pinhole apertures are well known. Furthermore, this remark appears entirely irrelevant to claims 16 and 20 that do not require an optical mask and a lens to be integrally formed. We again point out that Office policy requires clarity in rejections, and specifically, "A plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all claims in the group." *MPEP 707.07(d)*.

Claim 13 is patentable at least because it depends from claim 11, argued above as patentable. Claim 16 includes the limitation that "the optical mask is configured for modifying the phase without reducing the range of spatial frequencies, such that a main lobe of the ambiguity function is broader in  $v$  for a given value of  $u$  and the PSF has a functionally different form for a given value of  $\psi$ , in comparison to a main lobe of an ambiguity function and a PSF, respectively, characterizing the imaging system without the optical mask for those given values  $u$  and  $\psi$ , over an extended depth of focus larger than a depth of focus without the optical mask" which is the same limitation argued above for the patentability of claim 7. Claim 20 includes the



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limitation that "the optical mask is configured for modifying the phase such that a main lobe of the ambiguity function is broader for a given range of  $\psi$  at a given value of  $u$  and the PSF of the system has a functionally different form, in comparison to a main lobe of an ambiguity function and a PSF, respectively, characterizing the imaging system without the optical mask for that given range of the misfocus parameter  $\psi$  and over a range of object distances from the object to the system" which is the same limitation argued above for the patentability of claim 7. Claim 23 is patentable at least because it depends from claim 20. For each of these reasons, Applicants request the reconsideration and withdrawal of the rejection of claims 13, 16, 20 and 23 under 35 U.S.C. §103(a).

#### **5. Claim Rejection - 35 U.S.C. §103(a) over Kubo in view of Poon**

Claims 8, 15, 17 and 21 stand rejected by the Examiner under 35 U.S.C. §103(a) as unpatentable over the above referenced Kubo in view of the article "Optical/digital incoherent image processing for extended depth of field" by Poon et al. (hereinafter, "Poon"). Applicants respectfully disagree and traverse this rejection.

With respect to claim 8, the Examiner first states "The optical mask taught by Kubo et al that modulates phase of the wavefront and creates soft focus effect for an optical imaging system including a sharp focus objective lens as described for claim 7 above has met all the limitations of the claims. ... however this reference does not teach explicitly to include a post-processor for processing the detected optical image to reverse the blurring effect." Upon reading this passage, it appears that the Examiner first says that Kubo meets the limitations of all of claims 8, 15, 17 and 21, but then says that it does not. In light of these contradictory statements, we suggest that the Examiner meant to allege that Kubo meets the limitations of claim 7, but does not include the post-processor limitations of claims 8, 15, 17 and 21. The arguments below assume this interpretation, and we concede no argument by omission but reserve the right to respond to a corrected Office Action, if the Examiner decides this is not what was meant.

In the following paragraph, the Examiner alleges, *inter alia*, that "It would then have been obvious to one skilled in the art to apply the teachings of Poon et al to apply this post-processing scheme to the detected image and to add this digital image process arrangement to the imaging system of Kubo et al for the benefit of allowing the blurring effect introduced by the

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optical mask be reversed or eliminated [sic] so that a clearer image can be obtained in the photographic imaging system.” Office Action, pages 6-7.

Applicants refer to and reiterate the arguments listed in the Amendment filed 8 January 2006, and the explanation above with respect to claim 7. Kubo's “soft focus effect” eliminates high spatial frequency information for light of a given wavelength. It is known to those skilled in the art that such lost high spatial frequency information cannot be restored. Neither Kubo nor Poon describes how to post-process an image created utilizing Kubo's optical filter “for the benefit of allowing the blurring effect introduced by the optical mask be reversed or eliminated” - because it is impossible to do so. Poon describes a digital filter that will only work with the annular aperture that Poon uses:

“Now, suppose we have an object of which the spectrum  $F_d F_i$  represents a picture taken with a lens and an annular aperture, where  $F_i$  denotes the ideal image without degradation and  $F_d$  a filter function which expresses the degradation and is shown in FIG. 3(b). We can restore  $F_i$  by using a filter with the transfer characteristic  $F_d^{-1}$ . In this specific case,  $F_d^{-1}$  must have the characteristics as shown in FIG. 4. In two dimensions, this is an annular-pass filter.” Poon, p. 4614, end of section II. C., “Inverse Filtering.”

In other words, the fact that Poon discloses post-processing appropriate for an image formed through an annular aperture does not teach or suggest how to do processing for an image formed through an optical filter such as Kubo's, or even that such processing can be done at all.

Applicants also note that claim 8 requires, *inter alia*, “a post-processor for processing the stored image in accordance with the PSF.” Neither Kubo nor Poon teaches or suggests “processing the stored image in accordance with the PSF” or even what the PSFs of their respective optical systems are.

Since Kubo and Poon do not teach or suggest how Poon's post-processor can “remove imaging effects induced by the optical mask” of Kubo, and do not teach or suggest “processing the stored image in accordance with the PSF” produced by Kubo's optical filter, we request reconsideration and withdrawal of the rejection of claim 8 under 35 U.S.C. §103(a) over Kubo in view of Poon.

Applicants also note that even were it possible, any modification of the system of Kubo with the teachings of Poon “for the benefit of allowing the blurring effect introduced by the optical mask be reversed or eliminated” would be unsatisfactory for its intended purpose. As

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discussed in the passages cited above, Kubo intends to reduce or eliminate high spatial frequency information at a certain wavelength. Reversing this effect - were it even possible - would defeat Kubo's clearly stated intention. Since modifying Kubo in view of Poon would render the invention unusable for its intended purpose, *prima facie* obviousness cannot exist under the requirements of *In re Gordon*; thus we request reconsideration and withdrawal of the rejection of claim 8 under 35 U.S.C. §103(a) over Kubo in view of Poon on these grounds also.

Furthermore, we reiterate that Kubo is non-analogous art that cannot be combined with the teachings of Poon except in impermissible hindsight. As noted above, part of the Examiner's rationale for combining the references is that "Kubo reference teaches explicitly to use the phase mask to create **soft focus**, namely to extend the depth of focus..." Office Action, page 10. We have shown this to be an incorrect characterization of the term "soft focus." The Examiner goes on to say: "Poon reference teaches an image processing means for processing the image obtained by masking to remove the unwanted effect of the mask to make the final image more desirable. The combination of the two references therefore is reasonable for the motivation of processing the image obtained by the photographic system with the phase mask to obtain more desired image [sic] by digitally removed [sic] the unwanted effect of the mask." Office Action, page 10. The Examiner thus assumes there is some "unwanted effect" that should be removed - but we have shown that the effect of Kubo's mask is (1) intentional, and should not be removed, and (2) is impossible to remove since high spatial frequency information, at at least one wavelength, is simply lost.

None of the Examiner's arguments change the fact noted in the Amendment filed 8 January 2006, that while Kubo uses a *phase* filter to purposefully reduce modulation transfer function for light of a specific wavelength, Poon is concerned with extending depth of field using an annular, *amplitude* filter in combination with digital processing to achieve an extended depth of field. Kubo does not address depth of focus, directly or indirectly. Poon does not address wavelength-selective spatial frequency reduction, directly or indirectly. Neither Kubo nor Poon teaches or suggests post-processing to restore wavelength-specific spatial frequency information that is removed with an optical filter.

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Therefore, independent of the above requests, we also request reconsideration and withdrawal of the rejection of claim 8 as unpatentable under 35 U.S.C. §103(a) over Kubo in view of Poon, on the grounds that Kubo and Poon are non-analogous art.

The current Office Action does not direct any different remarks or arguments to claims 15, 17 and 21 than are directed to claim 8. Accordingly, we reiterate the arguments above related to claim 8, and point out that claims 15, 17 and 21 depend from claims 14, 16 and 20, argued above as allowable. We request reconsideration and withdrawal of the rejection of claims 15, 17 and 21 as unpatentable over Kubo in view of Poon under 35 U.S.C. §103(a) on each of the grounds that claims 15, 17 and 21 depend from allowable claims, that Kubo and Poon do not include each of the limitations of the claims, that modifying the system of Kubo with the teachings of Poon would render it unsatisfactory for its intended purpose, and that Kubo and Poon are non-analogous art.

We gratefully acknowledge that the Examiner has not rejected claims 19 or 22 under 35 U.S.C. 103(a) (or 35 U.S.C. 102(b)).

#### **6. - 14. Double Patenting**

Applicants note the Examiner's repeated provisional rejection of claims 7-8 and 11, and the new rejection of claims 12-23 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 75, 87, 88, 94, 95 and 99 of copending Application No. 09/070,969.

We also note the Examiner's provisional rejection of claims 7-8, 11 and 12-23 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/192,572.

We also note the Examiner's rejection of claims 7-8, 11 and 12-23 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 5,748,371, over claims 1-4 of U.S. Patent No. 6,873,733, over claims 1-29 of U.S. Patent No. 6,911,638 and over claim 1 of U.S. Patent No. 6,940,649.

Applicants believe that no response to the double patenting rejections listed above is necessary at this time, and that such rejections may be addressed with a terminal disclaimer once allowable subject matter is found in the present application. Put another way, Applicants note the

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double patenting rejection but cannot "disclaim" what is not yet known in the final form of these claims.

We also note the Examiner's rejection of claims 7-8, 11 and 12-23 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent Application No. 10/355,761. We contend that this rejection is improper insofar as this application has not issued as a patent, and we request reconsideration and withdrawal of this rejection.

#### 15. - 17. Response to Arguments

Applicants note the Examiner's statements with respect to Applicants' arguments. We also acknowledge the Examiner's response to certain arguments with respect to combining the Kubo and Poon references, and have addressed this response in the above remarks.

#### Conclusion

In view of the above Amendments and Remarks, Applicants have addressed all issues raised in the Office Action dated 20 March 2006, and respectfully solicit a Notice of Allowance. Should any issues remain, the Examiner is encouraged to telephone the undersigned attorney.

Applicants believe no fees are currently due, however, if any fee is deemed necessary in connection with this Response, please charge Deposit Account No. 12-0600.

Respectfully submitted,

LATHROP & GAGE L.C.

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